

(Lat.) on the leaves and petioles of buckthorn, *Rhamnus catharticus* L. Unfortunately, before detailed observations to discover the biology during the spring and early summer could be carried out, the population became extinct. The last sighting of the species was on 19.viii.1989 and when the locality was revisited on 2.vii.1990 it was discovered that *Lasius fuliginosus* was no longer foraging over the bush, and the aphid has not been seen subsequently. It is possible that the loss of the ant nest led to the disappearance of the aphid because *A. mammulata*, in common with some other aphids, is assiduously attended by ants, in this case probably exclusively *L. fuliginosus*. These ants remove the aphid honeydew as a source of food and also defend the aphids by removing insect natural enemies. In the absence of the protection given by the ants, the aphids seem unable to survive, though the underlying causes of their extinction remain unknown. So far no further localities for the aphid have been discovered to enable further investigations to proceed.—I. F. G. McLean, 109 Miller Way, Brampton, Huntingdon, Cambridgeshire PE18 8TZ.

#### REFERENCES

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**Emergence and pairing of *Rhyssa persuasoria* L. (Hymenoptera: Ichneumonidae).**—On the very hot afternoon of 22.v.92 I went to some woodland, 10 miles south of Reading to search for microlepidopterous larvae on *Fragula alnus* Miller. The damp area where most of the bushes grow is reached by first walking through a large pine plantation and it was here that I became unexpectedly side-tracked.

Several male *Rhyssa persuasoria* were flying actively over and along some felled pine trunks stacked at the ride-side, and closer examination then revealed a female *Rhyssa* busily engaged, its ovipositor fully inserted down what I took to be an emergence hole of the woodwasp *Urocerus gigas* (L.). After watching her for a while I then went on to my intended location, returning to the pine trunks at 7.40 p.m. Although the sun was still shining on some of the trunks I had not expected to see much ichneumon activity at this time of day. No males were flying in the manner noted earlier but I was surprised to see many congregated within approximately one square foot of trunk surface. I managed to count 20 but there were probably a few more. They were all in a state of some excitement, moving quickly back and forth and definitely dominated by the largest specimen who attempted to drive away other males by picking them up with its mandibles, shaking and tossing them aside.

The reason for all this activity was not immediately apparent, especially as a large female was noted, a few inches away ovipositing down a *Urocerus* tunnel and hence apparently unattractive to males. Then, just below a sliver of bark, the shining vertex of an ichneumon head, flush with the bark surface but coloured at variance with its surroundings, was noted, and all seemed explained.

It was by now 7.55 p.m. Within a few seconds the female *Rhyssa* began emergence but well before complete extrusion she was enveloped by a mass of frantic males. With the aid of a small twig I picked up this animated ball of wings and legs and with difficulty managed to remove most of the suitors.

Finally, two males remained, seemingly both paired with the female, and these were eventually removed. The unencumbered female then flew on to a nearby standing pine trunk, remained there a few seconds, then disappeared up into the canopy.

This interesting episode left me with some unanswered questions. (1) How is a newly

emerged, soft-tissued female ichneumon structurally capable of withstanding such an onslaught of males? (2) How can newly hatched wings allow such vigorous and lofty flight?, or is everything all hardened, ready and waiting down there within the pine trunk? My thanks to The Englefield Estate Trust for permission to study in their woodland.—B. R. Baker, 25 Matlock Road, Caversham, Reading, Berkshire RG4 7BP.

*Philanthus triangulum* (F.) (Hymenoptera: Sphecidae) new sites in Essex.—Two new colonies of *Philanthus triangulum* were found at Broom Hill, Chadwell and Shoebury Old Ranges both in South Essex.

At Broom Hill there appears to be a good population of *Philanthus* at two parts of the site, an old shallow quarry cut into the top of a hill on old Thames terrace gravels. One colony, the largest, is in the vertical face of a small south-facing sand exposure. The *Philanthus* have tunnel entrances between about half a metre to nearly two and a half metres above the ground level (nearly to the height of the exposure). The other colony has tunnels dug into an area of sandy ground within the area of a small older pit. Both colonies are in sheltered parts of the site. The only prey that *Philanthus* has been seen to utilize is the major prey species, the worker honeybee (*Apis mellifera* L.), which is by no means common at the site.

It seems quite possible that the *Philanthus* has remained undetected at this site for many years. The autumn squill *Scilla autumnalis* L. was found at the site only last year and in such a well botanized area as the south-east of England it seems remarkable that the plant should have previously escaped detection. The large and conspicuous robber fly *Asilus crabroniformis* L. was also found last year, the first record in Essex for many years. It seems to be present in some numbers, at least five individuals were seen on 6.viii.1992 resting on horse dung.

The locality is evidently of some importance for aculeates, also having turned up *Myrmica specioides* Bond., *M. schencki* Emery (Formicidae), *Hedychrum niemelai* L. (Chrysididae), *Smicromyrme rufipes* (F.) (Mutillidae), *Microdynerus exilis* (Herr.-Schaeff.) (Eumenidae), *Cerceris quinquefasciata* Rossi, (Sphecidae), *Andrena riparia* (Scop.) = *pilipes*, *A. trimmerana* (Kirby), *Lasioglossum malachurum* (Kirby), *L. pauperatum* (Brullé), *Dasypoda altercator* (Harris) and *Nomada fucata* Panz. (Apidae).

The Shoebury site is a nature reserve managed by the Essex Wildlife Trust. It was, until recently a neglected rifle range owned by the Ministry of Defence and appears to be a relict piece of old sand dune with a very open vegetation maintained by large numbers of rabbits. Along such a highly developed coastline it is a remarkable survival. The richness of its flora was only realized in the early 1980s and only now is the diversity of its invertebrate fauna being discovered. By their burrowing and grazing activities, rabbits play an important role in maintaining the open nature of the vegetation with short-growing plants and lichens. Many species of plant are very rare or absent elsewhere in the county.

The Hymenoptera have hardly been examined as yet, but *Myrmica specioides* and *M. schencki* (Formicidae) occur, as do *Gorytes bicinctus* (Rossius) (Sphecidae), *Andrena riparia* (Apidae) and *Hedychridium coriaceum* (Dahl.) (Chrysididae). A female *Philanthus triangulum* was captured on 29.vii.1992 whilst excavating a burrow on a gentle south-facing slope in bare sand with very close-cropped vegetation. Several other entrance holes of similar size were noticed nearby.

Records for the present century indicate that *Philanthus*, although remaining a rarity, seems to be locally common and well established in a few sites in the south-eastern counties of England (Else, 1989). Falk (1991) suggests that because of the